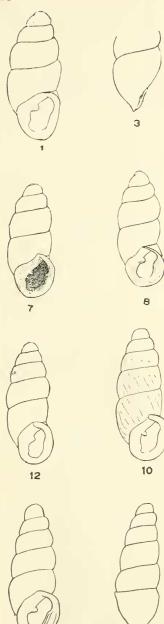
## THE AMERICAN SPECIES OF CARYCHIUM.

## BY HENRY A. PILSBRY.

The genus Carychium contains some of the smallest land mollusks known. The shell is cylindrical or high conical like that of Pupa, but the lack of eye-stalks and the form of the lingual teeth show the genus to belong to the family Auriculidæ, a group best known in America by the salt-marsh inhabiting Melampus. The species of Carychium, like other Auriculidæ, are terrestrial in habit, living among damp leaves or wood. The genus contains about 15 recent species, distributed over nearly the whole northern hemisphere.

In The Nautilus for 1891, vol. iv, p. 109, the writer gave a brief notice of the United States forms of the genus. Subsequent study resulted in a synopsis of the group, which was published in Proc. Acad. Nat. Sci., Phila., 1891, p. 318, with plate xiv. With a view of enlisting the services of conchologists in the needed examination of more material from various parts of the country, this synopsis is here reprinted. Information is needed to establish the range of the various forms, particularly in the West and South, and also the variations of the several forms. Only the collection of specimens from points geographically intermediate between the extremes of the range of this genus, and the examination of such material by a competent person, can finally decide the question of the number of naturally defined species, and which, if any of them, must be considered geographic races or sub-species.







Carychium exiguum Say. Figs. 1, 2, 3.

Shell cylindrical, the last two whorls of about equal diameter. Whorls 4½. Aperture decidedly over one-third the total altitude. Outer lip sinuous, moderately thickened, very strongly arcuate at its upper outer portion.

This is the common East American form, ranging from Maine southward and westward, the limits of its range not exactly determined as yet.

Carychium exiguum var. Mexicanum Pilsbry. Figs. 7, 8, 9.

Shell cylindrical. Whorls 4½. Aperture equal to, or a trifle exceeding one-third the total altitude of shell. Outer lip thickened at and below the middle by a very heavy deposit of callus upon its face. Lower fold of the columella sub-obsolete. Surface delicately striated.

Orizaba, Mexico.

Carychium occidentalis Pilsbry. Figs. 4, 5, 6.

Shell distinctly conical, tapering. Whorls 5. Aperture very oblique, larger than in *C. exiguum*, the outer lip flatly expanded, thin, not at all thickened on its face.

Portland, Oregon, is the only locality from which I have seen this species.

Carychium exile H. C. Lea. Figs. 10, 11, 12, 13, 14.

Shell elongated. Whorls 5-5½. Aperture small, very oblique, about one-third the length of the shell. Outer lip more or less thickened. Surface closely, regularly and very distinctly striated.

Eastern Pennsylvania (H. C. Lea); Kent, Ohio (Geo. W. Dean). Lea found this form on the Wissahickon Creek, near Philadelphia, but I have not been able to rediscover it there.

Carychium exile var. Jamaicensis Pilsbry. Figs. 15, 16.

Much elongated, similar to *C. exile*, but the surface smooth, not perceptibly striated.

Jamaica.

## LIST OF SHELLS FROM THE VICINITY OF MINGUSVILLE, MONTANA.

## BY HOMER SQUYER.

Many of the smaller forms were picked out of fine river drift found along the banks of Beaver Creek, a tributary of the Little Missouri, after the subsidence of the freshets.